



FINANCIAL EXCLUSION AND LIVELIHOOD ASSETS ACQUISITION AMONG MUSLIM HOUSEHOLDS IN ILORIN, NIGERIA: A STRUCTURAL INVARIANCE ANALYSIS

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ABSTRACT

This study examined the relationship that exists between the latent variables of financial exclusion (credit, savings, and remittances) and sustainable livelihood assets (social capital, natural capital, physical capital, and human capital) among some poor Muslim households in Ilorin, Kwara State, Nigeria. Data elicited via survey questionnaire administered on poor Muslim households was analysed based on both factor analysis and structural equation modelling using SPSS 19.0 and Amos 19.0 software. The results indicated that the lack of financial inclusion significantly and statistically impedes the acquisition of the livelihood assets. The invariance analysis also revealed that both gender and educational attainment do not moderate the hypothesised structural model. The relatively small sample size and coverage of study area are major limitations to generalizing the findings. Nonetheless, the findings imply that financial inclusion strategies in Nigeria and perhaps in other Muslim majority areas should be located within a broader sustainable livelihood framework. This paper contributes to the literature on implication of financial exclusion from an integrated welfare analysis perspective given that access to, and uses of finance are viewed as independent rather than conjoined.

JEL Classifications: I320, D14, G21

Keywords: Financial exclusion, Cultural capital, Livelihood assets, Structural invariance, Persistent poverty

1. INTRODUCTION

Numerous survey findings indicate that the lack of access to finance is one of the most often-cited constraints facing the poor. Consequently, the notion of access to finance as a poverty alleviation tool has, indeed, received enormous research attention. However, emphasis is placed on 'access' to finance since it presupposes an automatic 'use' of such accessible finance. Counter arguments to the usage of these two words are well presented in studies like Barr, Kumar and Litan (2007), and Demircug-Kunt, Beck, and Honohan (2008). These studies present an extensive review indicating that access to finance is different from use of finance. As such, even though they are not necessarily conjoined, they both indicate the prevalence of financial exclusion. Notwithstanding, it is a rarity to find studies that investigate the relationship between financial exclusion and its implication for sustainable livelihood from an integrated welfare analysis perspective (Osmani, 2006; Wagle, 2005).

There has been considerable policy response worldwide to assuaging the consequence of financial exclusion. Most of these policies are variants of microfinance especially from the non-Islamic point of view even though the incidence of financial exclusion is more prominent in most Muslim majority countries (Obaidullah, 2008; Muftie, 2013; USAID, 2010). This is also not a desirable reflection of the commitment of institutions like the Islamic Development Bank at stemming the negative tide of financial exclusion in the Muslim world. Expectedly, the unintended consequences of such financial exclusion may be likened to the proverbial orchestral dance, with different styles and rhythms all to the entertainment of a helpless audience – the Muslim poor (Wilson, 2007). However, most extant studies would rather view such consequences from the point of micro-entrepreneurial underdevelopment of the clients or non-sustainability of the microfinance institutions. In this regard, a lacuna is inadvertently created by not considering the implication of financial exclusion on the acquisition of other livelihood assets of the poor who often than not live on the margin of survival in its entire ramifications.

The objective of this study is to examine in a holistic framework, the factors that cause financial exclusion in a typical Muslim dominated area and the implication of such financial exclusion for the acquisition of livelihood assets among the poor in this case, the Ilorin emirate, Nigeria. This is with a view to finding out if some demographic variables especially gender and educational attainment

moderate the hypothesised relationship. It is envisaged that the findings obtained would have implication for a 'glocalised' rendering of Islamic microfinance in the study area specifically, and in a Muslim dominated area in general.

The remaining of this paper is structured as follows. The immediate section following this introduction is a brief literature review. Thereafter, the methodology and the findings of this study are presented.

2. LITERATURE REVIEW

2.1 THEORETICAL FRAMEWORK

The theoretical framework underlying this study is based on the theories of persistent inequality and their implication for intergenerational transmission of opportunities. Among the numerous theories of inequality, the theory of imperfect credit is of particular relevance. The theory holds that the poor's lack of financial citizenship has huge implication for their acquisition of other livelihood assets. As such, the poor are constrained to invest in human capital, physical capital, and social capital. Moreover, financial constraints make the poor to have limited neighbourhood choice. This combines with other inadequate livelihood capital to frustrate their opportunities and efforts to exit the persistent poverty trap they are often entrapped in. In this instance, technological viability of investments (risk and return, ability of entrepreneur etc.) are only secondary to initial dynastic wealth and capital ownership as determinants of class reproduction and intergenerational opportunity sets. Consequently, not only that inequality in the social, welfare, and consumption structure is endangered (Asutay, 2007), but also implicated is their differentials across generations. In the Nigerian¹ context, therefore, it is pertinent to investigate the prevalence of financial exclusion of the poor, its manifestations and implications as postulated in the theories of inequality and especially the imperfect credit theory. Moreover, the framework used in this study to conceptualize livelihood assets as the endogenous variable is derived from the Sustainable Livelihood Approach (SLA). This approach takes a broad view of poverty as a development issue. It focuses on the causes, manifestations, and other related aspects like

vulnerability and social exclusion (Krantz, 2001). A discerning attribute of the sustainable livelihood paradigm is that it is framed by five independent but interrelated capital vis. financial, human, social, natural and physical (DFID, 2001). Even more interesting is the fact that these livelihood assets can be conveniently located within the higher objectives of the Islamic law or *maqasid-shariah* which Dusuki and Abozaid (2007) argue is pertinent to ensuring socio-economic justice.

Sequel to the foregoing, the logical path envisaged in this study and that influenced the framework upon which it is built may be described as follows. The barriers to financial inclusion by the poor may aggravate the severity of their vulnerability to lack of the various livelihood assets. These assets are needed to survive, exit or even avoid transmission of their abject state of being across generations. As such, the poor may be prone to perennial incidence of both subjective and objective poverty on a dynastical basis (Wagle, 2005). Following the structural equation model used in this study, the interrelationship among these latent variables is made more discernible.

2.2 FINANCIAL EXCLUSION

In this study, the converse of the definition of financial inclusion by Mor and Ananth 2007: 1121) was used to operationalize the concept of financial exclusion. It may, therefore, be viewed as “the inability of some individuals to access and use basic financial services. Such services include savings, loans, and remittances in a manner that is reasonably convenient, reliable and flexible in terms of access and design”. This is in the sense that the savings are safe and insurance claims will be paid with certainty. In this study, financial exclusion as a latent construct was used as a mediating variable in which case it was determined by both voluntary and involuntary exclusion barriers; and also viewed as the cause of inadequate sustainable livelihood assets. Thus, it was both exogenous and endogenous in the structural model. As an endogenous variable, a structural path was drawn each from voluntary and involuntary financial inclusion barriers. These paths derived from studies like Barr, Kumar and Litan (2007) and Demirguc-Kunt, Beck and Honohan (2008) that argued that access to and use of financial services by the poor are not the same. Corr (2006) also noted that due to some reasons including price and non-price considerations; the high rate of access to financial services in Ireland does not translate into same level of use.

This kind of exclusion is what Beck and De la Torre (2006) described as a psychological response to systematic financial discrimination. Therefore, it may be postulated that:

H₁: There is a statistically significant relationship between voluntary exclusion factors and financial exclusion among the poor in, Ilorin, Nigeria.

H₂: There is a statistically significant relationship between involuntary exclusion factors and financial exclusion among the poor in Ilorin, Nigeria.

2.3 SUSTAINABLE LIVELIHOOD ASSETS (SLA)

This latent construct is the most complex among those used in this study. This is derived from the fact that it represented a composite of some other seemingly latent constructs. These latent constructs were transformed into summated scores to arrive at a unique value so that they could serve as indicators. In this study, each of these indicator variables, save for psychological capital was operationalized following the DFID (2001) definitions cited in the literature. Thus, human capital captured issues relating to education, healthcare, nutrition etc., while social capital captured issues relating to neighbourhood effects (Durlauf, 2006). Natural capital covered issues relating to the household living environment, while the physical capital related to possession of valuable tangible assets of the household. Finally, psychological capital assessed the hope, resilience, optimism, and sense of efficacy of the respondents (Avey, Wernsing, and Luthans, 2008; Pramanik et al., 2008). Therefore, the latent variable - sustainable livelihood assets - was used as an endogenous variable in the structural model. In this case, financial exclusion was viewed as the cause of inadequate sustainable livelihood assets. The relevant hypothesis is stated below:

H₃: There is a statistically significant causal relationship between financial exclusion and sustainable livelihood assets among the poor in Nigeria.

2.4 STRUCTURAL INVARIANCE

One of the objectives of this study is to examine the structural invariance of the baseline model across some demographic variables. Specifically, gender, and educational attainment are considered. This

is to determine if the hypothesized model operates equivalently across these divides. That is, to assess the moderating effects these demographic variables have on the hypothesized structural model.

The relative importance of gender analysis is demonstrated by findings such as a Nigerian study carried out by Okunmadewa (2005). He stated that though the incidence of poverty is higher in male headed households, the severity is higher in female headed household. Also, Louat, Grosh and Van der Gaag (1993) found that intergenerational transmission of poverty is more pronounced in a single parent household. This is especially where the woman is the head. Therefore, according to Chant (2007), the female headship is not just a problem for the women of the household, but also portends great danger for the upbringing of their children. Chant (2007:21) also stated that in such a female-headed household, 'the conjectured privations experienced by 'fatherless' children impinge upon their short- and longer-term well-being.' This severity of the vulnerability of women perhaps explains the coinage of the term 'feminization of poverty' by Bigman and Fofack (2000). However, as argued further by Chant (2007), such feminization of poverty does not automatically translate into 'masculinization' of wealth and privileges. As such, feminization is best viewed as a process and poverty as a state of well-being.

Furthermore, the relative importance of education as a key component in the human capital stock of a household cannot be discounted (Pramanik et al., 2008). This assertion derives from the fact that as stated in Omojola (1994), education is the means by which an individual acquires intellectual, physical and moral requirements needed to make him live a useful and responsible life in the society. It is a powerful way of breaking poverty cycles because formal education facilitates mobility, builds social networks, and promotes human development (Bhargava, 2003). In the case of Nigeria, the recognition of the fact that the road out of dynastic poverty runs by the school house is well-noted in Adewale (2011). He found that a major motivation for Nigerian students pursuing further degrees abroad is to break the poverty trap their families are immersed in. Some of these students attributed their poor family background to their parent's low educational attainment given Nigeria's unequal social and economic structure.

Adesanoye and Okunmadewa (2007) also found that a higher vulnerability to poverty is positively correlated to household heads' low level of educational attainment. The findings by Pramanik et al. (2008) also supported the hypothesis that the poverty incidence is

higher in poor households with illiterate heads. Noting the implication for persistence of poverty, World Bank (1998) stated that parental education attainment is very crucial to determining their investments in children human capital development. This is regardless of such parents' access to and usage of financial services. Interestingly, however, for an illiterate parent, likelihood is that the access to funds may even be counterproductive. This is in the sense that it may lead to engaging his children more in the family enterprise. Such enterprise engagement is usually at the expense of such children's acquisition of the requisite human capital for their future survival.

Against the backdrop of the likely moderating effect that both gender and educational attainment of household head may have on the relationship between financial exclusion and sustainable livelihood asset acquisition it is hypothesized that:

H₄: There is no structural variance in the hypothesized model across gender, educational attainment.

3. STUDY AREA

The study area covered includes some parts of Ilorin metropolis in Nigeria. The choice of Ilorin was based on the fact that it is cosmopolitan and is predominantly Muslim. As such, an assessment of religious reasons as barriers may be assessed. Ilorin metropolis is located some 300 kilometres from Lagos and 500 kilometres from Abuja, the Federal Capital Territory of Nigeria. Ilorin, city in North-Central Nigeria, capital of Kwara State is a commercial, manufacturing, and transport centre situated in an agricultural region producing grain, yams, peanuts, and livestock. Manufactured goods include processed food, cigarettes, crafts, and sugar. The community was established in the late 18th century, becoming the centre of a state that was part of the Oyo Empire. In the 1820s it became a Muslim emirate associated with the Fulani caliphate of Sokoto. The emirate subsequently annexed considerable territory. The British captured Ilorin in 1897. Its population based on the 2006 national census estimate is about 2,371,089 people (www.population.gov.ng).

4. METHODOLOGY

The target respondent was the head of household. The household heads are assumed to be responsible for allocating all economic and non-economic resources of the household. Only one such individual

regardless of gender should exist in each household in the sample. It was envisaged that relevant information can be elicited from this group of respondents on various related issues of interest in this study, especially on voluntary and involuntary financial exclusion, and capability assets acquisition. The demographic profile of the respondents is shown in Table 1 below:

TABLE 1
Demographic Profile of Respondents

Demographic Variables	Frequency (%)
Gender	
Male	55
Female	45
Age	
20-30 years	5
31-40 years	26
41-50 years	48
Above 50 years	21
Education Level	
Primary school and below	87
Secondary school and above	23

A systematic random sampling technique was used in this study. The main rationale for its choice was the peculiarity of the study area. In areas such as in the inner city of Ilorin, where the indigenous people live, there is usually an average of 3-5 households in a typical 'Agbo-ile' or 'family house'. Only a household was selected in such family housing units. This was based on a ratio of one out of every three family housing units. Where applicable, the systematic random sampling starts from the 'Alangua's' Quarter (Traditional Ward Chief), or a prominent structure, for example the central mosque until a satisfactory number of respondent household is surveyed in a ward.

However, for a wider coverage, intensive study, degree of accuracy desired, homogeneity of respondents, as well as allowance for non-response, a sample size of 400 was considered adequate for this study. As much as possible, the possibility of self-selection bias was reduced to its barest minimum (Getaneh and Carter, 2007). In this case, a sample of twenty households was selected in each of the twenty traditional wards in the Ilorin metropolis. A minimum of 50 percent response rate across the various wards was used as the target and thought sufficient for statistical analysis.

Primary data elicited through survey questionnaires were used mainly in this study. The issues raised in the questionnaire focused

mainly on access to and use of financial services, as well as the sustainable livelihood factors. Out of 400 questionnaires distributed based on sampling, only 302 questionnaires met the criteria for usage in this study and therefore, were used for further analysis.

The questionnaire covered several key areas of interest in this study. As such, respondents were asked to indicate their response using a 7-point Likert scale. The various dimensions measured by the questionnaire are derived from the literature search while some other questions are adapted and modified from Grosh and Glewwe (2000) Living Standards and Measurement Survey (LSMS), and the Resource and Need Questionnaire (RANQ) (ESRC Research Group, University of Bath, 2004).

Data obtained were further subjected to data cleaning, test of normality, adequacy and reliability tests using the skewness, kurtosis, Kolmogorov-Smirnov, KMO and Bartlett's test of sphericity, and the Chronbach Alpha tests respectively. Thereafter, based on an exploratory factor analysis, the four variables of interest (voluntary exclusion, involuntary exclusion, financial exclusion, and sustainable livelihood assets) loaded well, and were identified and used subsequently as the latent variables for the purpose of the analysis conducted. The exploratory factor analysis output is shown in Table 2 below:

TABLE 2
Rotated Component Matrix

	Components			
	1	2	3	4
Social Capital	0.908			
Human Capital	0.893			
Physical Capital	0.880			
Natural Capital	0.851			
Psychological Capital	0.789			
Cultural Capital		0.866		
Financial Complacency		0.776		
Debt Phobia		0.765		
Religion		0.616		
Payment			0.771	
Credit			0.720	
Savings			0.720	
Eligibility				0.856
Affordability				0.816

The goodness of fit of the measurement model was also tested. In this regard, a confirmatory factor analysis was conducted on the four latent variables using AMOS 19.0 Graphics Model-Fitting Program and adopting maximum likelihood estimation (Sahari et al., 2004). The essence is to assess how closely the items loaded in the four variables represent the same latent construct.

In achieving the foregoing, a number of descriptive fit indices were estimated in agreement with Hair et al. (2006). These indices include the minimum value of the discrepancy between the observed data and the hypothesized model divided by the degree of freedom (CMN/df). Other measures of fit adopted were the Comparative Fit Index (CFI), and the Root Mean Square Error of Approximation (RMSEA) as suggested in Meyers, Gamst and Guarino (2006) and Mueler and Hancocks (2008). Shown in the Table 3 below is the output of the confirmatory factor analysis (measurement model fits) as calculated using AMOS 19.0.

TABLE 3
Results of Confirmatory Factor Analysis

Model	χ^2/DF	CFI	RMSEA
Cut-off point	<5	> 0.90	< 0.10
CFA (Measurement model)	2.665	0.953	0.074

Furthermore, the construct reliability, convergent validity and divergent validity of the measurement model were assessed. The result is presented in Table 4 below.

TABLE 4
Convergent and Divergent Validity

Variables	CR	AVE	MSV	ASV
Cut-off point	> 0.7	CR > AVE > 0.5	AVE > MSV	AVE > ASV
Inv. Excl.	0.81	0.53	0.31	0.22
Vol. Excl.	0.86	0.67	0.30	0.27
Fin. Excl.	0.73	0.58	0.31	0.22
SLA	0.93	0.71	0.19	0.10

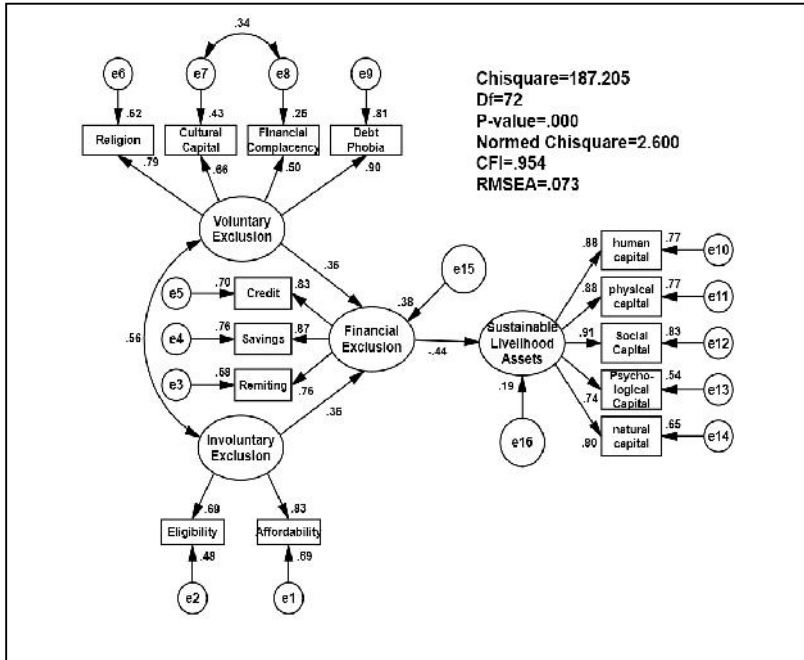
CR = Construct Reliability, AVE = Average Variance Explained

MSV= Maximum Shared Variance, ASV= Average Shared Variance

Based on the good fit obtained in the measurement model, the structural model in figure 1 below was also tested for goodness of

fit. The paths were drawn in line with the hypotheses of interest as indicated above.

FIGURE 1
Structural Model



An oval represent represents a latent variable, while a rectangle represents an observed variable or indicators. A small eclipse is used to represent the residual error term for both the latent and observed variables. For further explanation see Byrne (2010).

4. RESULTS

4.1 ANALYSIS OF THE STRUCTURAL MODEL

The hypothesized model in Figure 1 above was evaluated using AMOS version 19.0 based on the following indexes: the chi-square test, the comparative fit index (CFI), and the root mean square error of approximation (RMSEA). In addition, the path coefficients were assessed for statistical significance at $p < .05$. The results are shown in Table 5 below.

As indicated in Table 5 below, although undesirable the chi-square test was significant, $\chi^2(72, N=302) = 187.205, p = 0.000$, nonetheless, the results yielded acceptably high goodness-of-fit

indices. This indicates that the hypothesized model fits the observed data well. This fact was established with a normed chi-square (CMIN) value of 2.600, which is well below 5; often indicated as the benchmark in SEM literature. The CFI also yielded an impressive index of 0.954, whereas the RMSEA value of 0.073 is below the 0.08 cut-off point. These indicate a good fit of the model. All the hypothesized path coefficients demonstrated both statistical significance ($p < .05$) and practical significance (standardized $> .2$). The results are shown in Table 6 below.

TABLE 5
 Tabular Presentation of Fit Indices Criteria Compared to Baseline Model Output

Fit Indices	Recommended Threshold		Model Output
CMINDF	2	CMINDF 5	2.600
P	P	0.05	0.000
CFI	CFI	0.90	0.954
RMSEA	RMSEA	0.08	0.073

TABLE 6
 Regression Weights: (Structural model)

		Estimate	S.E	C.R	P
Financial Exclusion	← Voluntary Exclusion	0.335	0.74	4.507	0.00
Financial Exclusion	← Voluntary Exclusion	0.230	0.57	4.035	0.00
SLA	← Financial Exclusion	0.566	0.082	-6.886	0.00

4.2 EXOGENOUS VARIABLES: VOLUNTARY AND INVOLUNTARY FINANCIAL EXCLUSION

The two exogenous variables in the structural model are the involuntary exclusion and voluntary exclusion factors. In respective terms, they are proxy for both access to; and the use of financial services by the poor in the sample selected. The intent is to align this study’s analysis to the literature that documents the usual misconception of viewing access to and use of financial services as same (Demirguc-Kunt et al., 2008). Quite apparently, a combined relationship of some sort may exist between both the voluntary and involuntary financial exclusion barriers. In the case of this study, the relationship between both voluntary and involuntary exclusion factors indicated positive correlation ($r = 0.56$, $p = 0.05$). The standardized regression weights from both the voluntary and involuntary exclusion factors to financial exclusion itself were 0.35

apiece. In the structural model in Figure 1, the ‘earrings’ connecting the measurement errors of financial complacency and cultural capital was based on the modification indices output. This was meant to achieve a good model fit. Nonetheless, the empirical justification derives from Osili and Paulson (2006). They stated that the cultural capital resulting from previous experiences may make the financially repressed exercise some discontent. Therefore, they may become financial service complacent.

4.3 FINANCIAL EXCLUSION (MEDIATING VARIABLE)

As indicated in the structural model in Figure 1, with a R^2 of 0.38, the proportion of total variance explained by financial exclusion was moderately high. Moreover, all the three indicators vis. remittances, credit, and savings have high and statistically significant factor loadings at a critical ratio of 1.96. A discernible fact from these three latent variables is that both the voluntary and involuntary exclusion factors significantly determine the extent of financial exclusion. Furthermore, the basic services of savings, credit, and remittances all had high regression weights. This suggests that they are all statistically significant indicators of the financial exclusion latent construct. As such, hypotheses 1 and 2 are supported. That is, there is sufficient evidence in this study to conclude that financial exclusion is caused by both voluntary and involuntary factors.

4.4 SUSTAINABLE LIVELIHOOD ASSETS (ENDOGENOUS VARIABLE)

The main objective of this study was to determine the causal relationship that exists between financial exclusion and inadequate livelihood assets. As hypothesized in this study, financial exclusion was envisaged to aggravate the inadequacy of livelihood assets. In this sense, the incidence of poverty may be severely persistent. Following the DFID (2001), and Krantz (2001), the sustainable livelihood assets are just five vis. human, natural, social, physical, and financial capitals. In this study, the structural model used financial capital as the pivot. It was thus hypothesized that its deficiency portends inadequacy in other livelihood assets. However, based on the pilot study and exploratory factor analysis, a modification was made to the SLAs to include psychological capital.

As indicated in the baseline model in Figure 1, the R^2 of for this latent variable (inadequate SLA) was 0.19. Although not quite

strongly, it indicated an admissible proportion of the total variance explained. The standardized regression weight for the structural path from financial exclusion to SLA was -0.44 indicating a strong negative causal effect. This is greater than the absolute figure of 0.20 cut-off point for direct structural paths recommended in the SEM literature. Each SLA, though used in this study as an indicator, was arrived at via a summated scale based on partial aggregation method (Hoe, 2008). All the SLA indicators had high factor loadings of 0.70 and above on the latent construct and were all statistically significant at $p=0.05$.

4.5 STRUCTURAL INVARIANCE ANALYSIS

4.5.1 GENDER INVARIANCE

To test gender invariance, a simultaneous analysis of gender based on Male and Female grouping was carried out. In this case the path coefficients (Financial Exclusion Sustainable Livelihood Assets) were constrained to be equal to each other across the groups (Male = $n_1= 167$) and (Female = $n_2=135$). The chi-square test for differences revealed that the hypothesized model was not invariant between the two groups: male and female headed households, $\chi^2 (3, N= 302) = 12.143, p< 0.01$. This result is shown in Table 7 below:

TABLE 7
Results of Multiple Group Modelling (Gender)

Model	χ^2	Df	Critical-Value	χ^2	Sig.
Unconstrained	277.323	144			
Constrained	274.501	147	11.345	1.178	N.S

$P< 0.01$
N.S. = Non-Significant.

Although both the male and female groups’ structural models have reasonable fit, however, the constrained models indicate that the male household heads were more involuntarily excluded than the female household heads. In terms of financial exclusion, the males were most likely to have lesser access to and use of savings services. The females on the other hand were mostly excluded from the mainstream credit services. The consequential impact of such financial exclusion was, however, much more reflected in the females’ lack of SLAs as compared to the males’. Furthermore, the SLAs were more reflected in terms of social capital for females and

physical capital for males. This was not unexpected as the females in Nigeria, and perhaps, Sub Sahara Africa are more likely to belong to socio-cultural and religious organizations than the males. They are, therefore, likely to be socially excluded if due to financial incapability cannot fulfill social capital obligations as they fall due. The males on the other hand may have a preference for physical capital for two plausible reasons: the societal norm of bequeathing valuable assets to one's children, and the apparent low returns on human capital in Nigeria.

The implication of the result in Table 7 above is noteworthy. It is that the path coefficients did not interact with the exogenous and mediating variables to influence the incidence of persistent poverty in households sampled. Therefore, in the baseline structural model used in this study, gender was not a statistically significant moderating variable. As such, while the possibility of feminization of poverty is likely in the female-headed households, the male-headed households may not necessarily be better-off. In this regard, an automatic masculinization of wealth and privilege may also not hold.

4.5.2 EDUCATIONAL ATTAINMENT

To test educational attainment invariance, a simultaneous analysis based on Primary school and below and Secondary school and above grouping was carried out. In this case the path coefficients (Financial Exclusion Sustainable Livelihood Assets) are constrained to be equal to each other across the groups (Primary school and below = $n_1 = 232$) and (Secondary school and above = $n_2 = 70$). The chi-square test for differences revealed that the hypothesized model was not invariant between the two groups: $\chi^2(3, N = 302) = 12.143, p < 0.01$. This result is shown in Table 8 below:

TABLE 8
Results of Multiple Group Modelling (Educational Attainment)

Model	χ^2	Df	Critical-Value	χ^2	Sig.
Unconstrained	277.323	144			
Constrained	274.501	147	11.345	4.725	N.S

$P < 0.01$ N.S. = Non-Significant.

Based on the assessment criteria in SEM, both the primary school and below; and the secondary school and above group models have reasonable fit. A perceptible fact from the educational attainment invariance analysis was that the financial exclusion of

the primary school and below group of respondents was equally influenced by both the voluntary and involuntary factors. However, the secondary school and above group of respondents was financially excluded particularly due to voluntary exclusion barriers. This was not unexpected as their relatively higher levels of education should give them better access to and awareness of sources of financial services. Therefore, this latter group of respondents was found to be financially excluded mainly due to reluctance to use rather than access to financial services.

The implication of the result in Table 8 above is also noteworthy. It is that the path coefficients did not interact with the exogenous and mediating variables to influence the incidence of lack of SLAs in sampled households. Therefore, in the baseline structural model used in this study, educational attainment is not a moderating variable. This finding was predicated on the fact that the χ^2 value of 4.725 is lower than the χ^2 critical value 11.345 at $\alpha = 0.001$.

5. DISCUSSION OF FINDINGS

An attempt was made to align the analysis in this study with some recent studies that argue against the misconception of viewing access and use of financial services as same (Demirguc-Kunt et al., 2008). As such, both involuntary exclusion and voluntary exclusion factors were used as proxy for access to and use of financial services respectively. Both variables were found to statistically and significantly explain financial exclusion. This finding seems consistent with those of Corr (2006). For instance, the inability of the financially repressed to provide requisite documentation and collateral assets impedes their eligibility to have access to requisite financial resources.

Furthermore, affordability was found to be a key indicator of involuntary exclusion. This corroborates the findings in Anand and Rosenberg (2008), and Demirguc-Kunt et al. (2008). These studies found that the price related barriers frustrate the financial inclusion of the poor by the mainstream financial arrangement. In fact, the CBN stated that more than 65 percent of eligible financial service seekers are excluded in Nigeria due to un-affordability.

It was also found that debt phobia, financial complacency, cultural capital and religious barriers reflects voluntary exclusion. This finding favourably compared to Anand and Rosenberg (2008) that stated that fear of inability to repay together with the unreliable income source of potential borrowers makes them financially

complacent. Ikhwan and Johnston (2009) also noted that debt phobia and procedural complications account for the informal businesses' voluntary exclusion from the formal financing sources. Specifically, this finding supported those from a South East Asian study by Morduch (2007), and a Latin American study by Navajas and Tejerina (2006). In both studies, strong empirical evidences were established for the combined strength of financial complacency and phobia for debt as explanations for voluntary financial exclusion.

A major finding in this study was that the poor need financial services beyond credit. This confirmed the findings of Bun, Chinyere, and Hernandez-Coss (2007). They argued that quite a substantial sum of money is transferred to the unbanked Nigerians via other non-formal means. Furthermore, beyond credit facilities, this study offered a proof of the need for other micro-finance services like savings. This finding agreed with Hirschland (2002) that as long as issues relating to security, lower transaction, appropriate design and lower interest rates are resolved, poor clients' savings potential is very high. In a more recent and broad based studies in Hyderabad and the Philippines, Banerjee et al. (2009) and Karlan and Zimman (2009) respectively noted the insufficiency of microcredit especially when compared to the efficacy of affordable micro-savings deposits services for same purpose.

As hypothesized in this study, financial exclusion was envisaged to aggravate the inadequacy of livelihood assets. The hypothesized path not only gave a negative regression weight as expected, it was also statistically significant. Although all the indicators loaded high, the highest loading was on social capital. This was not unexpected given the kin system as a manifestation of the membership theory among people of sub-Saharan African descents (Bowles, Durlauf, and Hoff, 2006). This finding was consistent with the findings of Hoff and Sen (2006) that the relative indispensability of the kin-based insurance cannot be discounted especially in the sub-Sahara African context.

Human capital and physical capital also had high loadings. This indicated their relative importance as reflective indicators of the sustainable livelihood assets. This finding is consistent with Galor and Moav (2004). Furthermore, the statistical significance of psychological capital in this study is an indication of the fact that a relationship exists between financial exclusion and psychological capital as a composite measure of hopelessness, lack of resilience, and lack of efficacy (Avey, Wernsing, and Luthans, 2008).

6. CONCLUSION

A discernible fact from discussion of findings above is that both the voluntary and involuntary exclusion factors significantly determined the extent of financial exclusion. Moreover, the basic services of savings, credit, and remittances all had high regression weights in that order as indicators of the financial exclusion latent construct. This implied that other than the focus of micro-financing on microcredit, the exclusion of the poor from the other mainstream financial system in Nigeria can also be viewed. This is in the context of savings, remittances and other financial services.

Moreover, while acknowledging the apparently relative importance of financial exclusion as a poverty trigger in Nigeria and elsewhere, a discernible fact was exposed in this study. That is that there is the need as concluded in Burra, Deshmukh-Ranadive, and Murthy (2007) for financial inclusion strategies to be located within a broader sustainable livelihood framework. According to Abdulrahim (2007), there is a need to find the right balance between the commercial orientation and social obligations of financial institutions. This is needed to ensure such financial inclusion strategies impact significantly on the acquisition of the various livelihood assets essential for mitigating intergenerational transmission of poverty and inequality.

ENDNOTES

1. For instance, according to Chowdhury, Ghosh, and Wright (2005), evidences abound that the financial repressions from both the formal and informal sources of finance interact with many other economic, social and demographic factors to cause the vicious circle of poverty.
2. The failure of the formal banking system to offer a full range of depository and credit services, at competitive prices, to all households and/or businesses, especially the poor thus compromising their ability to participate fully in the economy and to accumulate wealth (Dymski, 2005: 2)
3. See for instance, Galor and Moav (2004) for an extensive review of literature on implication of financial impediments for human and physical capital accumulation.
4. Poverty traps enmesh individuals and households in vicious cycles of material deprivation and a lack of investment in human capital and other livelihood assets (Chronic Poverty Research Centre, CPRC, 2009: 133).

5. See World Bank data cited in Todaro and Smith (2009:234-235).
6. A sustainable livelihood according to the Department for International Development (DFID, 2001) refers to the capability and capacity of the vulnerable or the poor to enhance or maintain a living standard, and to exit or recover from economic shocks or stress.
7. The most fundamental objectives include protection of religion (deen), self (nafs), intellect (aql), posterity (nasl), and wealth (mal)
8. These sustainable livelihood assets as used in this study include: Social capital, human capital, physical capital, natural capital, and psychological capital.
9. The confirmatory factor analysis for each summed indicator was earlier subjected to configure invariance. The results show that no measurement invariance exists across demographic profiles of household heads. As such the summated scale was used in order to make the model more parsimonious.
10. See Krantz (2001) for instance.
11. Obviously, the popularization of the term the ‘feminization of poverty’ has brought to the fore, issues related to women and poverty. However, linking the term to the multidimensionality of the privations and exploitation of women would be more valuable to stemming the vulnerability of women to persistent poverty (Chant, 2007).
12. Chant (2007) also stated that the incidence of poverty is higher in households where the head had no grade of schooling.
13. This is consistent with the findings of Pramanik et al. (2008) in their Malaysian study.
14. Islam forbids interest. Perhaps, religious explanation may be offered as to why some poor people self-exclude themselves from taking advantage of opportunity to access finance (See: Corr, 2006, Wallace and Quilgar, 2005).
15. As in most development studies, for instance (Pramanik, 1999; Pramanik et al., 2008), the household head is defined as an individual, who is acknowledged as the bread winner for a group of people who lives together, depend on the collective incomes and eats from the same source.

16. The house numbering system in most part of the Ilorin metropolis is unsystematic. Moreover, the fact that number of households dwelling in a building may be difficult to ascertain, a sampling devise that takes cognizance of these problems needed to be adopted.
17. A compound, consisting of numerous housing units and households, known under a common family name, often based on ancestral family lineage and kinship.
18. This was considered sufficiently large. This also satisfies large accuracy for a study of this nature based on some earlier relevant studies (Barnes and Sebstad, 1999; and Schafer, 2001). Moreover, such response rate suited well the Structural Equation Modelling as the tool of analysis.
19. All variables had a Cronbach Alpha score of 0.8 and above.
20. Maximum Likelihood Estimates (MLE) that was used in the CFA is robust against a moderate departure from the assumption of multivariate normality archetypal of social science data (Hair et al., 2006; Micceri, 1989; Smith and Langfield-Smith, 2004).
21. Items related to a SLA latent construct was subjected to an exploratory factor analysis. The average score of the items that have significant factor loadings was used to represent respective SLA as an indicator in both the measurement and structural models.
22. In the constrained model, the indicators and path estimates are constrained to be equal across the various groups (e.g. males and females). If the χ^2 is $> \chi^2_{critical}$, $p = 0.001$, then the moderating variable has statistical significance on the baseline model.
23. This favourably compares to the findings by Chant (2007) in her study of the Gambia.
24. In the constrained model, the indicators and path estimates are constrained to be equal across the various groups (e.g. males and females). If the χ^2 is $> \chi^2_{critical}$, $p = 0.001$, then the moderating variable has statistical significance on the baseline model.
25. As stated in Isern et al. (2009:4), "However, only 37.5 percent of the estimated volume of remittance flows of NGN 102 billion (US\$ 842.7 million) is originated by Money Transfer Operators (MTOs) and disbursed by banks. All other flows originate from correspondent bank transfers, SWIFT, foreign domiciliary accounts, non-commercial imports, private sector imports and other in-kind transactions."

26. In fact, this issue was noted as a cause of the ineffectiveness of the MFBs in Nigeria. For instance, most of them still rely on the MCF from the State Governments or funds from NAPEP on which they charge a spread margin of 400 basis points. No meaningful efforts are made at venturing into other non-credit variants of microfinance.

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